## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

n re Application of:	)	PATENT APPLICATION
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Inventors: Douglas J. Tweet, Jong-Jan Lee

And Jer-Shen Maa

Serial No.: Not Yet Assigned ) Attorney Docket No. SLA 0735

Filed: Herewith

Title: LOW TEMPERATURE ANNEAL

TO REDUCE DEFECTS IN HYDROGEN-IMPLANTED RELAXED SIGE LAYER

Honorable Commissioner for Patents Alexandria, VA 22313-1450

## INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. §1.97

Sir:

Listed on attached Form PTO-1449 is information submitted pursuant to 37 C.F.R. §1.56. A copy of each listed publication is submitted herewith.

Applicant respectfully requests that the listed information be considered by

the Examiner and made of record in the above-identified application.

(Date) 2 // /(

Respectfully submitted,

David C. Ripma

Reg. No. 27,672

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1449A/PTO		U.S. Department of Commerce Patent and Trademark Office		Complete If Known		
Rev. 10/95 Pater	-atent and Trademant Office	Application Number				
LIST OF PRIOR ART CITED				Filing Date	February 17, 2004	
BY APPLICANT  (use as many sheets as necessary)			,	First Named Inventor	DOUGLAS JAMES TWEET	
				Group Art Unit		
			necessary)	Examiner Name		
Sheet	1	of	2	Attorney Docket No.	SLA.0735	

U.S. PATENT DOCUMENTS							
Examiner Initials	Cite No.1			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YY	Pages, Columns, Lines, Where Relevant Passages or Figures Appear	
		6,464,780	B1	Mantl et al.	.10-15-02		
		6,562,703	B1	Maa et al.	05-13-03	el.	
		2003/0143783	A1	Maa et al.	07-31-03		
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	FOREIGN PATENT DOCUMENTS										
Examiner Cite Initials No.1	Cite No.1	Fo	reign Patent Dcum	ent	Name of Patentee or Applicant of Cited Document	of Cited Document Wher MM-DD-YY Pas	Pages, Columns, Lines, Where Relevant	T⁵			
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¹Unique citation designation number. ²See attached Kinds of U.S. Patent Documents. ³Enter Office that issued the document, by the two letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the senal number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.1⁵ if possible. ⁴Applicant is to place a check mark here if English language Translation is attached

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Sheet	2	of	2	Attorney Docket No.	SLA.0735

		OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS	
Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, country where published, source.	T²
		RIM et al., Strained Silicon NMOSFETs for high performance CMOS technology, 2001 Symposium on VLSI Technology Digest of Technical Papers, p. 59, IEEE (2001)	
		NAYAK et al., High-mobility Strained-Silicon PMOSFETs, IEEE Transactions on Electron Devices, Vol. 43, 1709 (1996)	
		WELDON et al., On the mechanism of the hydrogen-induced exfoliation of silicon, J. Vac. Sci. Technol. B. 15, 1065, (1997)	
		MANTL et al., Strain relaxation of epitaxial SiGe layers on Silicon(100) improved by hydrogen implantation, Nuclear Instruments and Methods in Physics Research B 147, 29, (1999)	
		TRINKAUS et al., Strain relaxation mechanism for hydrogen-implanted Si <sub>1-</sub> , Ge <sub>x</sub> /Silicon(100) heterostructures, Appl. Phys. Lett., 76, 3552, (2000)	
		CEROFOLINI, et al., Hydrogen-related complexes as the stressing species in high-fluence, hydrogen-implanted, single-crystal silicon, Physical Review B, vol. 46, p. 2061 (1992)	
		FRABBONI et al., Static disorder depth profile in ion implanted materials by means of large angle convergent beam electron diffraction, Physical Review Letters, vol. 81, 3155 (1998)	
		FRABBONI, Lattice strain and static disorder in hydrogen-implanted and annealed single-crystal silicon as determined by large-angle convergent-beam electron diffraction, Physical Review B, vol. 65, 165436 (2002)	
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